

IS-MPMI

Reporter

International Society for
Molecular Plant-Microbe Interactions

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Deadline for submitting items for the next issue is November 22, 2004.

Submission of materials as electronic files, either on disk or as e-mail attachments, will speed processing. For information on submitting electronic images contact Joel Berg at jberg@scisoc.org.

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Plan Now to Attend the 12th International Congress on Molecular Plant-Microbe Interactions



Join IS-MPMI July 17-22, 2005 in Cancun, Mexico at the Fiesta Americana Grand Coral Beach Cancun Hotel, one of the only AAA Five Diamond Resorts in the Caribbean Sea. Enhance your knowledge by attending any of the 18 sessions, seven plenary symposia, 28 plenary speakers, and 108 presentations. Visit www.sodio.net/XIICONGRESS_IS-MPMI/ for meeting highlights and information. Vamos al Mexico!

IS-MPMI Member Receives CPS Outstanding Research Award

Abul Ekramoddoullah is the recipient of the 2004 Canadian Phytopathological Society (CPS) Outstanding Research Award. This award recognizes exceptional research in plant pathology in Canada. It is the Society's most prestigious award, with consideration given to research involving new concepts, the discovery of new phenomena or principles in plant pathology, or novel application of existing principles.

Ekramoddoullah obtained his B.S. and M.S. degrees from Dhaka University in Bangladesh and a Ph.D. degree from McGill University in Montreal. He is a senior research scientist with NRC-CFS-Victoria and an adjunct professor at the University of Victoria. Ekramoddoullah is an expert in forest pathology, focusing on the white pine blister rust pathosystem, as well as in mycoherbicide research.

2004 Noel T. Keen Award for Research in Molecular Plant Pathology

The Noel T. Keen Award for Research in Molecular Plant Pathology went to **Brian J. Staskawicz**, Maxine J. Elliot professor and chair of the Department of Plant and Microbial Biology, University of California-Berkeley. This award recognizes individuals who have made outstanding contributions in host-pathogen interactions, plant pathogens or plant-associated microbes, molecular biology of disease development, or defense mechanisms.

As a leader in the field of molecular plant pathology for more than 20 years, Staskawicz's accomplishments have been recognized on numerous occasions during his career. Recognition of Staskawicz as a recipient of the Noel T. Keen Award is based in part on his collaborative studies and in part on his independent research that has resulted in numerous advances in molecular plant pathology. His research achievements have been instrumental in leading us to a new era in plant pathology. His more recent breakthroughs promise to yield even greater insights into the molecular signaling that occurs during the response of plants to pathogens. Not only can we expect a clearer understanding of the molecular basis of gene-for-gene disease resistance, but in the near future this work should contribute to practical efforts to improve disease control by engineering broad-spectrum disease resistance into important crop plants.

1st International Conference on Plant-Microbe Interactions: Endophytes and Biocontrol Agents

The 3rd announcement of the "1st International Conference on Plant-Microbe Interactions: Endophytes and Biocontrol Agents" (abbr. EBA), to be held in Finland, is now available at www.bioweb.fi/.

The conference will be held at the Hotel Riekonlinna in Lapland, Saariselkä, the most northern winter sports resort in Finland and in the European Union.

The span of the conference takes place April 18-22, 2005. This is late winter in Lapland and a popular season for winter sports and other activities. The main goal of the

conference is to promote multidisciplinary collaboration between scientists working on different fields of plant/microbe interactions and to establish outward circumstances for discussion of these highly important and current issues in an informal and relaxed atmosphere.

We welcome you to participate in the conference and give a talk or present a poster about your special field. Please find more information about the EBA conference at www.bioweb.fi/. We look forward to meeting you in Lapland.

2nd Australian Medicago and Model Legume Workshop

The 2nd Australian Medicago and Model Legume Workshop will be held in Perth, Western Australia April 4-8, 2005. The meeting will include approximately 20 eminent international speakers and will be jointly organized by the WA Medicago groups and the ARC Centre for Integrative Legume Research (Peter Gresshoff et al).

Further details will be released shortly. To ensure you receive the full details and the registration package, please send e-mail to Medicago@murdoch.edu.au.

News from the Dale Bumpers National Rice Research Center



Erxun Zhou

The USDA-ARS Dale Bumpers National Rice Research Center (DB NRRC) in Stuttgart, Arkansas, welcomes Erxun Zhou. Zhou is a visiting scholar from South China Agricultural University (SCAU) located in Guangzhou, P.R. China, where he has been an associate professor in the Department of Plant Pathology and Mycology. Since his arrival at DB NRRC in July 2004, Zhu has been working on the isolation of rice resistance

genes to blast and sheath blight pathogens in the Molecular Plant Pathology Program under Yulin Jia. Zhou's visit is supported by a grant from the Arkansas Rice Research and Promotion Board and represents the first step of cooperation and scientific exchange between SCAU and DB NRRC.

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Information is available online at
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**International Society for Molecular
Plant-Microbe Interactions**

September 2004, Volume 17, Issue 9

Use of a Pooled Transposon Mutation Grid to Demonstrate Roles in Disease Development for *Erwinia carotovora* subsp. *atroseptica* Putative Type III Secreted Effector (DspE/A) and Helper (HrpN) Proteins. M. C. Holeva, K. S. Bell, L. J. Hyman, A. O. Avrova, S. C. Whisson, P. R. J. Birch, and I. K. Toth.

The Assimilation of g-Butyrolactone in *Agrobacterium tumefaciens* C58 Interferes with the Accumulation of the N-Acyl-Homoserine Lactone Signal. A. Carlier, R. Chevrot, Y. Dessaux, and D. Faure.

TtsI, a Key Regulator of *Rhizobium* Species NGR234 Is Required for Type III-Dependent Protein Secretion and Synthesis of Rhamnose-Rich Polysaccharides. C. Marie, W. J. Deakin, T. Ojanen-Reuhs, E. Diallo, B. Reuhs, W. J. Broughton, and X. Perret.

Identification and Characterization of the *SSB1* Locus Involved in Symptom Development by *Spring beauty latent virus* Infection in *Arabidopsis thaliana*. K. Fujisaki, F. Hagihara, Y. Azukawa, M. Kaido, T. Okuno, and K. Mise.

Temporal Expression of PR-1 and Enhanced Mature Plant Resistance to Virus Infection Is Controlled by a Single Dominant Gene in a New *Nicotiana* Hybrid. A. B. Cole, L. Király, L. C. Lane, B. E. Wiggins, K. Ross, and J. E. Schoelz.

Rice cDNA Microarray-Based Gene Expression Profiling of the Response to Flagellin Perception in Cultured Rice Cells. S. Fujiwara, N. Tanaka, T. Kaneda, S. Takayama, A. Isogai, and F.-S. Che.

Genome-Wide Identification of Plant-Upregulated Genes of *Erwinia chrysanthemi* 3937 Using a GFP-Based IVET Leaf Array. S. Yang, N. T. Perna, D. A. Cooksey, Y. Okinaka, S. E. Lindow, A. M. Ibekwe, N. T. Keen, and C.-H. Yang.

Stimulation of the Lipoxygenase Pathway Is Associated with Systemic Resistance Induced in Bean by a Nonpathogenic *Pseudomonas* Strain. M. Ongena, F. Duby, F. Rossignol, M.-L. Fauconnier, J. Dommes, and P. Thonart.

Proteomic Analysis of Resistance Mediated by Rcm 2.0 and Rcm 5.1, Two Loci Controlling Resistance to Bacterial Canker of Tomato. G. L. Coaker, B. Willard, M. Kinter, E. J. Stockinger, and D. M. Francis.

Nonmycorrhizal (Myc^{\sim}) Mutants of *Hebeloma cylindrosporum* Obtained Through Insertional Mutagenesis. J.-P. Combier, D. Melayah, C. Raffier, R. Pépin, R. Marmeisse, and G. Gay.



August 2004, Volume 17, Issue 8

The Genome Sequence of the Gram-Positive Sugarcane Pathogen *Leifsonia xyli* subsp. *xyli*. C. B. Monteiro-Vitorello, L. E. A. Camargo, M. A. Van Sluys, J. P. Kitajima, D. Truffi, A. M. do Amaral, R. Harakava, J. C. F. de Oliveira, D. Wood, M. C. de Oliveira, C. Miyaki, M. A. Takita, A. C. R. da Silva, L. R. Furlan, D. M. Carraro, G. Camarotte, N. F. Almeida, Jr., H. Carrer, L. L. Coutinho, H. A. El-Dorry, M. I. T. Ferro, P. R. Gagliardi, E. Giglioti, M. H. S. Goldman, G. H. Goldman, E. T. Kimura, E. S. Ferro, E. E. Kuramae, E. G. M. Lemos, M. V. F. Lemos, S. M. Z. Mauro, M. A. Machado, C. L. Marino, C. F. Menck, L. R. Nunes, R. C. Oliveira, G. G. Pereira, W. Siqueira, A. A. de Souza, S. M. Tsai, A. S. Zanca, A. J. G. Simpson, S. M. Brumbley, and J. C. Setúbal.

The Necrotic Pathotype of the *Cucumber mosaic virus* (CMV) Ns Strain Is Solely Determined by Amino Acid 461 of the 1a Protein. Z. Divéki, K. Salánki, and E. Balázs.

A New Class of Ubiquitin Extension Proteins Secreted by the Dorsal Pharyngeal Gland in Plant Parasitic Cyst Nematodes. T. Tytgat, B. Vanholme, J. De Meutter, M. Claeys, Ma. Couvreur, I. Vanhoutte, G. Gheysen, W. Van Criekeing, G. Borgonie, A. Coomans, and G. Gheysen.

Aberrant mRNA Processing of the Maize *Rp1-D* Rust Resistance Gene in Wheat and Barley. M. A. Ayliffe, M. Steinau, R. F. Park, L. Rooke, M. G. Pacheco, S. H. Hulbert, H. N. Trick, and A. J. Pryor.

Changes in Gene Expression in Canola Roots Induced by ACC-Deaminase-Containing Plant-Growth-Promoting Bacteria. N. Hontzeas, S. S. Saleh, and B. R. Glick.

Phenotypic Variation of *Pseudomonas brassicacearum* as a Plant Root-Colonization Strategy. W. Achouak, S. Conrod, V. Cohen, and T. Heulin.

Potato Plants Genetically Modified to Produce N-Acylhomoserine Lactones Increase Susceptibility to Soft Rot *Erwinia*. I. K. Toth, J. A. Newton, L. J. Hyman, A. K. Lees, M. Daykin, C. Ortori, P. Williams, and R. G. Fray.

Polygalacturonase-Inhibiting Proteins Can Function as Activators of Polygalacturonase. G. Kemp, L. Stanton, C. W. Bergmann, R. P. Clay, P. Albersheim, A. Darvill.

The Transcriptome of Rhizobacteria-Induced Systemic Resistance in *Arabidopsis*. B. W. M. Verhagen, J. Glazebrook, T. Zhu, H.-S. Chang, L. C. van Loon, and C. M. J. Pieterse.

Cytological, Genetic, and Molecular Analysis to Characterize Compatible and Incompatible Interactions Between *Medicago truncatula* and *Colletotrichum trifolii*.

C. Torregrosa, S. Cluzet, J. Fournier, T. Huguet, P. Gamas, J.-M. Prospéri, M.-T. Esquerré-Tugayé, B. Dumas, and C. Jacquet.

Transient Coexpression of Individual Genes Encoded by the Triple Gene Block of *Potato mop-top virus* Reveals Requirements for TGBp1 Trafficking. A. A. Zamyatin, Jr., A. G. Solovyev, E. I. Savenkov, A. Germundsson, M. Sandgren, J. P. T. Valkonen, and S. Y. Morozov.

Distribution and Sequence Analysis of a Family of Type III-Dependent Effectors Correlate with the Phylogeny of *Ralstonia solanacearum* Strains. M. Lavie, B. Seunes, P. Prior, and C. Boucher.

July 2004, Volume 17, Issue 7

The *Arabidopsis* TIR-NB-LRR Gene *RAC1* Confers Resistance to *Albugo candida* (White Rust) and Is Dependent on *EDS1* but not *PAD4*. M. H. Borhan, E. B. Holub, J. L. Beynon, K. Rozwadowski, and S. R. Rimmer.

Glutamine Utilization by *Rhizobium etli*. R. Tatè, S. Ferraioli, S. Filosa, M. Cermola, A. Riccio, M. Iaccarino, and E. J. Patriarca.

Differential Gene Expression in Individual Papilla-Resistant and Powdery Mildew-Infected Barley Epidermal Cells. T. Gjetting, T. L. W. Carver, L. Skøt, and M. F. Lyngkjær.

Soilborne Wheat Mosaic Virus Movement Protein and RNA and Wheat Spindle Streak Mosaic Virus Coat Protein Accumulate Inside Resting Spores of Their Vector, *Polymyxa graminis*. B. A. Driskel, P. Doss, L. J. Littlefield, N. R. Walker, and J. Verchot-Lubicz.

RCH1, a Locus in *Arabidopsis* That Confers Resistance to the Hemibiotrophic Fungal Pathogen *Colletotrichum biginsianum*. Y. Narusaka, M. Narusaka, P. Park, Y. Kubo, T. Hirayama, M. Seki, T. Shiraishi, J. Ishida, M. Nakashima, A. Enju, T. Sakurai, M. Satou, M. Kobayashi, and K. Shinozaki.

Ethylene Response Factor 1 Mediates *Arabidopsis* Resistance to the Soilborne Fungus *Fusarium oxysporum*. M. Berrocal-Lobo and A. Molina.

The *avrRxo1* Gene from the Rice Pathogen *Xanthomonas oryzae* pv. *oryzicola* Confers a Nonhost Defense Reaction on Maize with Resistance Gene *Rxo1*. B. Zhao, E. Y. Ardales, A. Raymundo, J. Bai, H. N. Trick, J. E. Leach, and S. H. Hulbert.

Inorganic Cations Mediate Plant PR5 Protein Antifungal Activity through Fungal *Mnn1*- and *Mnn4*-Regulated Cell Surface Glycans. R. A. Salzman, H. Koiwa, J. I. Ibeas, J. M. Pardo, P. M. Hasegawa, and R. A. Bressan.

Lotus japonicus LjKUP Is Induced Late During Nodule Development and Encodes a Potassium Transporter of the Plasma Membrane. G. Desbrosses, C. Kopka, T. Ott, and M. K. Udvardi.

Introduction of Plant and Fungal Genes into Pea (*Pisum sativum* L.) Hairy Roots Reduces Their Ability to Produce Pisatin and Affects Their Response to a Fungal Pathogen. Q. Wu and H. D. VanEtten.

Basal Defenses Induced in Pepper by Lipopolysaccharides Are Suppressed by *Xanthomonas campestris* pv. *vesicatoria*. M. Keshavarzi, S. Soyly, I. Brown, U. Bonas, M. Nicole, J. Rossiter, and J. Mansfield.

Accumulation of Lipochitin Oligosaccharides and NodD-Activating Compounds in an Efficient Plant-*Rhizobium* Nodulation Assay. T. Tak, P. C. van Spronsen, J. W. Kijne, A. A. N. van Brussel, and K. J. M. Boot.

June 2004, Volume 17, Issue 6

Site-Directed Mutagenesis and Generation of Chimeric Viruses by Homologous Recombination in Yeast to Facilitate Analysis of Plant-Virus Interactions. D. Liang, S. M. Gray, I. Kaplan, and P. Palukaitis

Identification and Characterization of Victorin Sensitivity in *Arabidopsis thaliana*. J. M. Lorang, N. Carkaci-Salli, and T. J. Wolpert.

The *Tobacco mosaic virus* 126-kDa Protein Associated with Virus Replication and Movement Suppresses RNA Silencing. X. S. Ding, J. Liu, N.-H. Cheng, A. Folimonov, Y.-M. Hou, Y. Bao, C. Katagi, S. A. Carter, and R. S. Nelson.

Bacterial Genes Involved in Type I Secretion and Sulfation Are Required to Elicit the Rice *Xa21*-Mediated Innate Immune Response. F. G. da Silva, Y. Shen, C. Dardick, S. Burdman, R. C. Yadav, A. Lopez de Leon, and P. C. Ronald.

RaxH/RaxR: A Two-Component Regulatory System in *Xanthomonas oryzae* pv. *oryzae* Required for AvrXa21 Activity. S. Burdman, Y. Shen, S.-W. Lee, Q. Xue, and P. Ronald.

The Expression of *MaEXPI*, a *Melilotus alba* Expansin Gene, Is Upregulated During the Sweetclover-*Sinorhizobium meliloti* Interaction. W. Giordano and A. M. Hirsch.

Enhanced Resistance to *Cucumber mosaic virus* in the *Arabidopsis thaliana ssi2* Mutant Is Mediated via an SA-Independent Mechanism. K.-T. Sekine, A. Nandi, T. Ishihara, S. Hase, M. Ikegami, J. Shah, and H. Takahashi.

Characterization of the *Xanthomonas* AvrXv4 Effector, a SUMO Protease Translocated into Plant Cells. J. Roden, L. Eardley, A. Hotson, Y. Cao, and M. B. Mudgett.

The *Erwinia chrysanthemi* EC16 *hrp/brc* Gene Cluster Encodes an Active Hrp Type III Secretion System That Is Flanked by Virulence Genes Functionally Unrelated to the Hrp System. C. M. Rojas, J. H. Ham, L. M. Schechter, J. F. Kim, S. V. Beer, and A. Collmer.

Gene Expression Profile Changes in Cotton Root and Hypocotyl Tissues in Response to Infection with *Fusarium oxysporum* f. sp. *vasinfectum*. C. Dowd, I. W. Wilson, and H. McFadden.

Molecular Characterization of a *Melon necrotic spot virus* Strain That Overcomes the Resistance in Melon and Nonhost Plants. J. A. Díaz, C. Nieto, E. Moriones, V. Truniger, and M. A. Aranda.

NolR Regulates Diverse Symbiotic Signals of *Sinorhizobium fredii* HH103. J. M. Vinardell, F. J. Ollero, Á., Hidalgo, F. J. López-Baena, C. Medina, K. Ivanov-Vangelov, M. Parada, N. Madinabeitia, M. del Rosario Espuny, R. A. Bellogín, M. Camacho, D.-N. Rodríguez-Navarro, M. E. Soria-Díaz, A. M. Gil-Serrano, J. E. Ruiz-Sainz.

Swimming Motility, a Virulence Trait of *Ralstonia solanacearum*, Is Regulated by FlhDC and the Plant Host Environment. J. Tans-Kersten, D. Brown, and C. Allen.

Flagellin Is Not a Major Defense Elicitor in *Ralstonia solanacearum* Cells or Extracts Applied to *Arabidopsis thaliana*. C. Pfund, J. Tans-Kersten, F. M. Dunning, J. M. Alonso, J. R. Ecker, C. Allen, and A. F. Bent.

You can search all MPMI Abstracts at www.ismpminet.org/mpmi/search.asp

Welcome New Members

The following members joined IS-MPMI between April 1, 2004 and July 31, 2004.
Please join us in welcoming them to the Society!

Jihong Liu Clarke

Norwegian Crop Research Inst
Aas, NORWAY

James N. Culver

Univ of Maryland
College Park, MD, U.S.A.

William E. Fry

Cornell Univ, Ithaca, NY, U.S.A.

Lin Fu-Cheng

Zhejiang Univ,
Zhejiang, PEOPLES REP OF CHINA

Christiane Gebhardt

Max Planck Inst
Koln, GERMANY

Stewart M. Gray

Cornell Univ
Ithaca, NY, U.S.A.

Ping He

Massachusetts General Hospital
Boston, MA, U.S.A.

Yuki Ichinose

Okayama Univ
Okayama, JAPAN

Wayne M. Jurick, III

Univ of Florida
Gainesville, FL, U.S.A.

Aadra Kachroo

Univ of Kentucky
Lexington, KY, U.S.A.

Pradeep Kachroo

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Norio Sugauma

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Kariya, Aichi, JAPAN

Toyoshi Yoshiga

Saga Univ
Saga, JAPAN

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Two Postdoctoral Positions in Plant Biochemistry and Molecular Biology

Kansas State University is seeking two full-time postdoctoral research associates to study plant defense response to pathogen and aphids. The research emphasis will be on the identification and characterization of function of plant genes associated with defense response, and the involvement of lipids and other metabolites in plant defense. For the first position, we seek a candidate with a Ph.D. in biochemistry/molecular biology, or a related field. Applicants should have expertise in characterizing the biochemical function of proteins, protein expression and purification. Candidates with experience working in the area of lipid biochemistry are preferred. For the second position, we seek candidates with a Ph.D. in genetics/molecular biology/plant pathology, or a related field. Applicants should have expertise in biochemistry and molecular biology. Candidates with experience working in the area of plant defense to pathogen and/or insects are preferred. The successful candidates must be able to design and conduct independent experiments. Excellent oral and written communication skills and the ability to work well in a team-based/collaborative research atmosphere are essential. Applicants should be available to begin work on the project beginning November 1, 2004. Screening begins September 1, 2004 and will continue until position is filled. A complete application must consist of: 1) A cover letter detailing your qualifications and how they relate to the advertised position (please indicate the position for which you are applying); 2) A professional resume; 3) Reprints/preprints of publications; 4) Names and contact information for three referees. Send a completed application package to: Dr. Jyoti Shah, Assistant Professor, Division of Biology, Kansas State University, 303 Ackert Hall, Manhattan, KS 66506, Phone: +1.785.532.6360, Fax: +1.785.532.6653. Applications can also be emailed to shah@ksu.edu. *Kansas State University is an equal opportunity employer and actively seeks diversity among its employees.*

Faculty Position in Phytopathology

The Hebrew University of Jerusalem's Department of Plant Pathology and Microbiology invites applications for a full-time tenure-track position in phytopathology. Starting date is October 1, 2005. Applicants should have a Ph.D. in a relevant discipline and have post-doctoral research experience in topics related to phytopathology. Starting rank will be commensurate with qualifications. Candidates are expected to conduct original and independent research on basic and applied aspects of Phytopathology, specializing in phytopathogenic fungi. Responsibilities will include teaching (in Hebrew) of undergraduate and graduate courses in phytopathology and related topics, and supervising graduate students. Candidates will be expected to attract external competitive funding. Strong leadership and communication capabilities are required and collaborative research with other researchers will be encouraged. Please

send a cover letter stating research and teaching interests, detailed resume, list of publications and the names of three people from academic institutions who are willing to write letters of recommendation (including complete address, telephone and fax numbers, and e-mail address) to the address below. Applications will be reviewed promptly and are invited until the position is filled.

Send applications to: Prof. Yaacov Okon, Head, Department of Plant Pathology and Microbiology, Faculty of Agricultural, Food and Environmental Quality Sciences, The Hebrew University of Jerusalem, P.O. Box 12, Rehovot 76100, Israel. Send fax or e-mail to: Rina Byer, department secretary at: +972 8 9466794, byerrina@agri.huji.ac.il.

Postdoctoral Positions

Most vascular flowering plants are able to form symbiotic associations with arbuscular mycorrhizal (AM) fungi. These associations (called "arbuscular mycorrhizas") develop in the roots, where the fungus colonizes the root to obtain carbon from the plant, while assisting the plant with the acquisition of phosphorus from the soil. Development of the symbiosis involves the cellular reprogramming of the root cortical cells to allow invasion of the fungus, arbuscule development and nutrient exchange. Research in our laboratory focuses on the mechanisms underlying development of the symbiosis and nutrient transport at the arbuscule-cortical cell interface. A model legume, *Medicago truncatula*, and AM fungus, *Glomus versiforme* are used for these analyses and our approaches are multi-disciplinary with an emphasis on molecular and cell biology, genetics and genomics. Forward genetic screens have enabled the identification of *M. truncatula* mutants impaired specifically in their ability to develop mycorrhizal associations. Transcriptional profiling has identified sets of *M. truncatula* genes whose expression is differentially regulated in mycorrhizal roots and reverse genetics approaches (RNAi) are being utilized to assess function in the symbiosis. Two postdoctoral positions are available. Motivated individuals are sought to lead small teams focused on the positional cloning of *M. truncatula* genes required for mycorrhiza formation (project i) and the assessment of symbiotic gene function via RNAi (project ii). Requirements: A Ph.D in genetics, molecular biology, biochemistry, or a related field is required. Demonstrated molecular biology or genetics expertise and a strong publication record are essential. For project (i), experience with mapping or positional cloning is an advantage. For project (ii) experience with large-scale projects (high-throughput, high sample number) is an advantage. Motivation and excellent communication skills are required for both positions. Send a cover letter, a statement of research interests, and a CV including the names of three references to: Maria J. Harrison, Boyce Thompson Institute, Tower Road, Ithaca, NY 14853 or via e-mail to mjh78@cornell.edu. (Position # 2004-02 and #2004-08) EOE M/F/D/V. The Boyce Thompson Institute is a non-

profit research institute located on the central Cornell University campus in Ithaca, New York (<http://bti.cornell.edu/>).

Four Postdoctoral Positions in Molecular Plant-Pathogen Interaction Research

Postdoctoral positions are available immediately to conduct molecular studies on the interactions between plant pathogens and soybean and/or arabidopsis at the Center for Plant Responses to Environmental Stresses at Iowa State University. The pathogens include viruses, fungi, and cyst nematodes. These openings represent a unique opportunity to be part of a multidisciplinary and highly interactive research team targeting a molecular understanding of how selected pathogens infect their host plants and how plants successfully defend themselves. For example, two positions will conduct research to explore the functions of cyst nematode and plant proteins in allowing successful parasitism using a variety of molecular biology and reverse genetics approaches. These approaches will include transgenic plant technologies, RNAi, in situ immunodetection, as well as biochemical methodologies. Another position will conduct mRNA profiling of the soybean rust disease using Affymetrix GeneChips. Finally, plant responses to viral infections will be characterized using a panel of genetic and molecular biology approaches. Candidates must have excellent knowledge of molecular biology tools and should demonstrate an interest in plant-microbe interactions. Prior experience with plant pathogens is not a prerequisite. Please e-mail your application containing i) a cover letter, ii) your CV, iii) a list of publications, and iv) a list of contact addresses for three reference persons to Dr. Thomas J. Baum (tbaum@iastate.edu) and Dr. Steve Whitham (whitham@iastate.edu). Additional information can be obtained at www.baumlab.org and www.public.iastate.edu/~swhitham/homepage.html.

Postdoctoral Position - Chromatin Silencing of Metabolic Gene Clusters

The Nancy Keller Lab in the Plant Pathology Department of the University of Wisconsin, Madison, WI has an open postdoctoral position. Position involves elucidating the mechanism of LaeA, a transcriptional repressor of gene silencing. LaeA is a nuclear methyltransferase and one aim will be to identify the target protein(s) of LaeA. Loss of *laeA* silences expression of genes in metabolic gene clusters in *Aspergillus* spp. Loss of expression is locational and bears similarities to yeast mating type silencing. Incumbent will be exploring chromatin remodeling and nucleosome positioning in LaeA mutants and be involved in microarray analysis of *laeA* mutants in quest for identification of novel secondary metabolite gene clusters. Qualifications: Expertise in biochemistry, protein-protein interactions, chromatin assays; Ph.D. in biochemistry, cell and molecular biology, microbiology, or related field; and communication and interpersonal skills. Salary commensurate with experience, \$31,000 – 36,000/year. This two-year position

with opportunity for additional year is open immediately. Please contact Nancy Keller at npk@plantpath.wisc.edu for more information and queries.

Postdoctoral Position - Signaling Molecules in Fungal Development

The Nancy Keller Lab (www.plantpath.wisc.edu/fac/npk.htm) at the University of Wisconsin, Plant Pathology Department, Madison, WI seeks a candidate with a PhD in microbiology, molecular biology, plant pathology, or related field. Experience in fungal or microbial molecular biology/biochemistry preferred. Position explores conservation of oxygenated fatty acids (oxylipins) acting as sporulation signals in filamentous fungi. The oxylipins are generated from fungal dioxygenases, the first of which our lab has recently described in Tsitsigiannis (2004). *Aspergillus nidulans* contains three dioxygenases producing different oxylipins. The ratio of which oxylipins are present are important for balancing sexual and asexual spore production in *A. nidulans*. These molecules also signal secondary metabolism biosynthesis and are important virulence factors acting as Cross-Kingdom signals in post/parasite interactions. Position is open for postdoctoral scientist to determine conservation of these signals in plant and human pathogens (e.g. *Fusarium graminearum* and *Aspergillus fumigatus*). Mechanistic studies will employ use *A. nidulans*. This two-year position with opportunity for additional year is open immediately. Please contact Nancy Keller at 882 Russell Labs, UW-Madison, Department of Plant Pathology, 1630 Linden Dr., Madison, WI 53706; Phone +1.608.262.9795; Fax +1.608.263.2626; E-mail: npk@plantpath.wisc.edu for more information and queries. *Affirmative Action/Equal Opportunity Employer.*

Postdoctoral Position - RNAi Anti-Toxin Gene Expression

The Nancy Keller Lab (www.plantpath.wisc.edu/fac/npk.htm) at the University of Wisconsin, Plant Pathology Department, Madison, WI has an open position that involves targeting of expression of RNAi (RNA interference) constructs to fungal toxin genes during fungal pathogenesis in barley. Associate will join a group studying cereal gene expression and plant and fungal transformation with the goal of producing cereals resistant to *Fusarium graminearum* through manipulation of RNAi technology in both plant and fungus. Qualifications: Expertise in molecular biology, targeting of proteins, expression vectors, transformation of cereals; or in-situ hybridization, fluorescence microscopy; Ph.D. in plant genetics, pathology, molecular biology or related field; communication and interpersonal skills. Research will be conducted on the University of Wisconsin campus under the direction of Nancy Keller (Plant Pathology Dept.) and Ron Skadsen (USDA/ARS Cereal Crops Research Unit). The position is available immediately. The appointment is for one-year and is renewable for successive years. Please contact Nancy Keller at 882 Russell Labs, UW-Madison, Department of Plant Pathology, 1630 Linden Dr., Madison,

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WI 53706; Phone +1.608.262.9795; Fax +1.608.263.2626; E-mail: npk@plantpath.wisc.edu for more information and queries. *Affirmative Action/Equal Opportunity Employer.*

Postdoctoral Position in Plant Genomics, The Samuel Roberts Noble Foundation

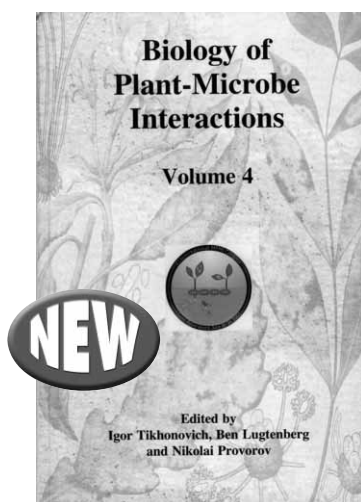
One postdoctoral position will be available October 2004 in the laboratory of Kiran Mysore, Plant Biology Division. Projects will center on functional genomic approaches to understand plant-microbe interactions and focusing mainly on non-host resistance. The successful candidate will be involved in identifying and dissecting the plant signal transduction pathways during non-host disease resistance. The incumbent will be required to supervise technicians,

high school, and undergraduate students. Postdoctoral candidates should have a Ph.D. in plant pathology, plant biology, plant genetics, or related area and extensive experience in plant molecular biology. Experience working with bacterial pathogens and virus-induced gene silencing is desirable but not required. Starting salaries begin at \$40,000/year with excellent benefits. Applicants should send a CV, cover letter, a one page statement of purpose, and names and addresses of three references to The Noble Foundation, Attn: Human Resources, Job #PB-S095-28, P.O. Box 2180, Ardmore, OK 73402 or you may e-mail your CV and application to NFHR@noble.org. Applications are available at www.noble.org.

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